



U.S. Army Corps of Engineers
Environmental Research & Development
Environmental Laboratory

Geospatial Data Analysis Facility

Description

Geographic information systems (GIS), remote sensing (RS), and global positioning systems (GPS) are important tools for helping to understand and protect our nation's environmental resources. These technologies help to bring a spatial perspective to environmental phenomena, allowing researchers to visualize relevant environmental information and to model information in new and unique ways. Recognizing the importance of these new tools, the U.S. Army Engineer Waterways Experiment Station (WES) Environmental Laboratory maintains a state-of-the-art computing facility devoted to the application of spatial information analysis technologies, including GIS, RS, and GPS. The Geospatial Data Analysis Facility (GDAF) applies these technologies to support a diverse array of civil and military environmental and natural resource research projects.

Dedicated Staff

The GDAF includes a research staff of 12 full and part-time employees with diverse backgrounds in areas such as geography, computer science, mathematics, civil engineering, geodesy, modeling, landscape architecture, geology, remote sensing, photo interpretation, wildlife ecology, biology, statistics, and computer cartography.

Applications

The facility staff has conducted numerous projects involving the advanced applications of spatial analysis technologies involving the following:

- Landscape dynamics modeling and analysis
- Multispectral digital image processing, classification, and analysis using satellite and aircraft data
- Landscape mapping and change detection
- River basin/flood plain analysis
- Shoreline erosion detection and mapping
- Development of customized, high-quality cartographic map products

Point of Contact

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